

AMENDMENTS TO THE CLAIMS

1-84. (Cancelled)

85. (Currently Amended) Apparatus for inputting at least alpha-numeric information into a computer according to claim 84 and wherein comprising:

a projector, projecting an image of at least part of a keyboard onto an inert surface, said projector comprising:

a solid state light source which illuminates, via a negative lens, a mask which defines said image of at least part of a keyboard and also defines a mouse functionality including a touchpad and a pair of click buttons, said solid state light source comprising a diode laser light source having natural astigmatism which obviates a need for a condensing lens upstream of said mask, said mask being pre-distorted in order to compensate for optical distortions in projection, and said mask comprising a dynamic mask comprising a spatial light modulator; and

a mirror which directs light from said mask onto said inert surface;

a single two dimensional sensor comprising:

at least one infrared illuminator comprising a solid state light source which directs light via a focusing lens and a mirror onto a cylindrical reflecting element which produces radially directed illumination about a longitudinal axis of said cylindrical reflecting element and extends over 180 degrees, generally in a plane generally parallel to said inert surface, said radially directed illumination being characterized in that it has a relatively narrow spread in a direction generally perpendicular to said inert surface, said illuminator comprising comprises-a line light source and a scanning mirror which reflects a line of light produced by said line light source in a direction generally perpendicular to the plane of said inert surface;

an array of discrete sensing elements; and

at least one lens operative to image a region overlying each of a plurality of keyboard locations onto a corresponding at least one of said array of discrete sensing elements,

said single two dimensional sensor sensing user indicator interaction

with specific locations on said image of at least part of a keyboard; and
at least alpha-numeric information generation circuitry employing an
output from said single two dimensional sensor for providing an at least alpha-numeric
output.